

REMARKS:

Claims 3-10 and 12-15 are pending and stand rejected.

Claim 6 was amended to more clearly state the range of viscosities that polymer (B) may have.

It is believed that no new matter has been added by this amendment.

Response to the Examiner's Response to Arguments.

The Examiner was unable to find the density of "0.902" in the examples. Applicant points to page 19, Table 1, Examples 3 and 4, in the 11<sup>th</sup> line of the Table in the row "Characteristics of the polymer (B)", "density (g/cm<sup>3</sup>)".

Repeated Objection to the Specification

The Specification is objected to under 35 U.S.C. §132(a) as introducing new matter. Specifically, the Examiner states that the phrase "between 0.863 and 0.902" does not appear in the original specification.

The Examiner is correct, the entire phrase with 0.863 as the minimum and 0.902 as the maximum does not appear together in the original specification. The original claim 1, and on page 3, line 23 of the original disclosure lists the density range for polymer (B) as being between 0.863 and 0.915. However, Applicant demonstrated in Examples 3 and 4 on page 13 working Examples in which the (B) density is 0.902. Applicant has narrowed the original range, supported by the lower limit of 0.863 on page 3, line 23, and the upper limit of 0.902 in Examples 3 and 4. Applicant has amended the claim to cite a density range bounded on the lower end by the 0.863 value of page 3, line 23, and the upper value of 0.902 – supported by Examples 3 and 4.

35 U.S.C. §112

Claim 6 stands rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner states that the phrase "between 0.863 and 0.902" does not appear in the original specification. The Examiner is correct that the

two limitations do not appear together in the Disclosure. There is no requirement in 35 U.S.C. §112 that both the upper and lower limits on a range appear together, but only

“The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.” 35 U.S.C. §112

Applicant contends that the requirement of 35 U.S.C. §112 has been met by Applicant's description, which clearly specifies both a lower and upper limit to the density of the metallocene polyethylene (B). The lower limit of 0.863 is found on page 3, line 23 of the Substitute Specification. The upper limit of 0.902 is shown in Examples 3 and 4. Applicant contends that since the upper and lower limits of the density range of component (B) are established, the range has been established in a manner to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention. Applicant has also amended the claims to spell out the upper and lower values of the range individually

### 35 U.S.C. §103(a)

Claims 3-10 and 12-15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Robert et al (EP 1136536 – using US 6,528,587 as the translation). The Robert reference is 100 percent owned by Applicant, and includes common inventors. The Robert reference fails to teach or disclose that the dilutant polyolefin (B) having a density in the range of 0.863 and 0.902, nor that the adhesiveness increases between  $t=0$  and  $t=8$  days.

The Robert reference is similar to Applicant's invention in component (A) – but uses a higher density layer (B) of 0.910 – 0.935 (Col. 1, lines 58 and 59; and Col. 4, lines 52-54). [On page 3, line 4 of the present Office Action the Examiner incorrectly cites Col. 4, lines 52-54 as reading 0.863-0.915 instead of the correct 0.910-0.935].

Applicants have found that a (B) layer of lower density provides better adhesion properties, and shows an increase in peel strength between  $t=0$  and  $t=8$  days, as illustrated in Table 2 on page 16 of Applicant's Application. The compositions of the invention (diluted with metallocene PE – Ex 1-4) have a much higher initial peel strength in a three layer PET/tie/PE structure, then those of the Comparative Examples (similar to the Examples of the Robert reference)

Applicant has found that the claimed multi-layer structure has better peel strength, and the peel strength increases from  $t=0$  to  $t=8$  days than the structures of the Robert reference – as shown by Applicant's comparative examples. The compositions of the invention increased in adhesiveness significantly from  $t=0$  to  $t=8$  days, while the comparative examples either increased only slightly – and in most cases decreased significantly.

The Roberts reference fails to recognize the type of dilutant polyethylene (B), or adhesive strength increase on aging as result effective variables. Since only result effective variables can be optimized by routine experimentation (MPEP 2144.05), one of ordinary skill in the art would have no motivation to arrive at Applicant's claims based on the Robert reference and routine experimentation.

The Roberts reference teaches a density of polymer (B) of from 0.910 – 0.935 (Col 4, lines 52-54). Applicant claims a much lower density for (B) of from 0.863 – 0.902. These ranges do no overlap – Applicant's claims are to a lower density metallocene polyethylene (B) than that of Roberts. Thus the Roberts reference fails to teach or disclose all of Applicant's claim limitations, instead teaching away from Applicant's claims, as amended, and therefore fails to present a *prima facie* case of obviousness.

In view of the above, the Applicant believes that the reasons for rejection have been overcome, and the claims herein should be allowable to the Applicant. Accordingly, reconsideration and allowance are requested.

Respectfully submitted;



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